Exhibit A

Map of Site

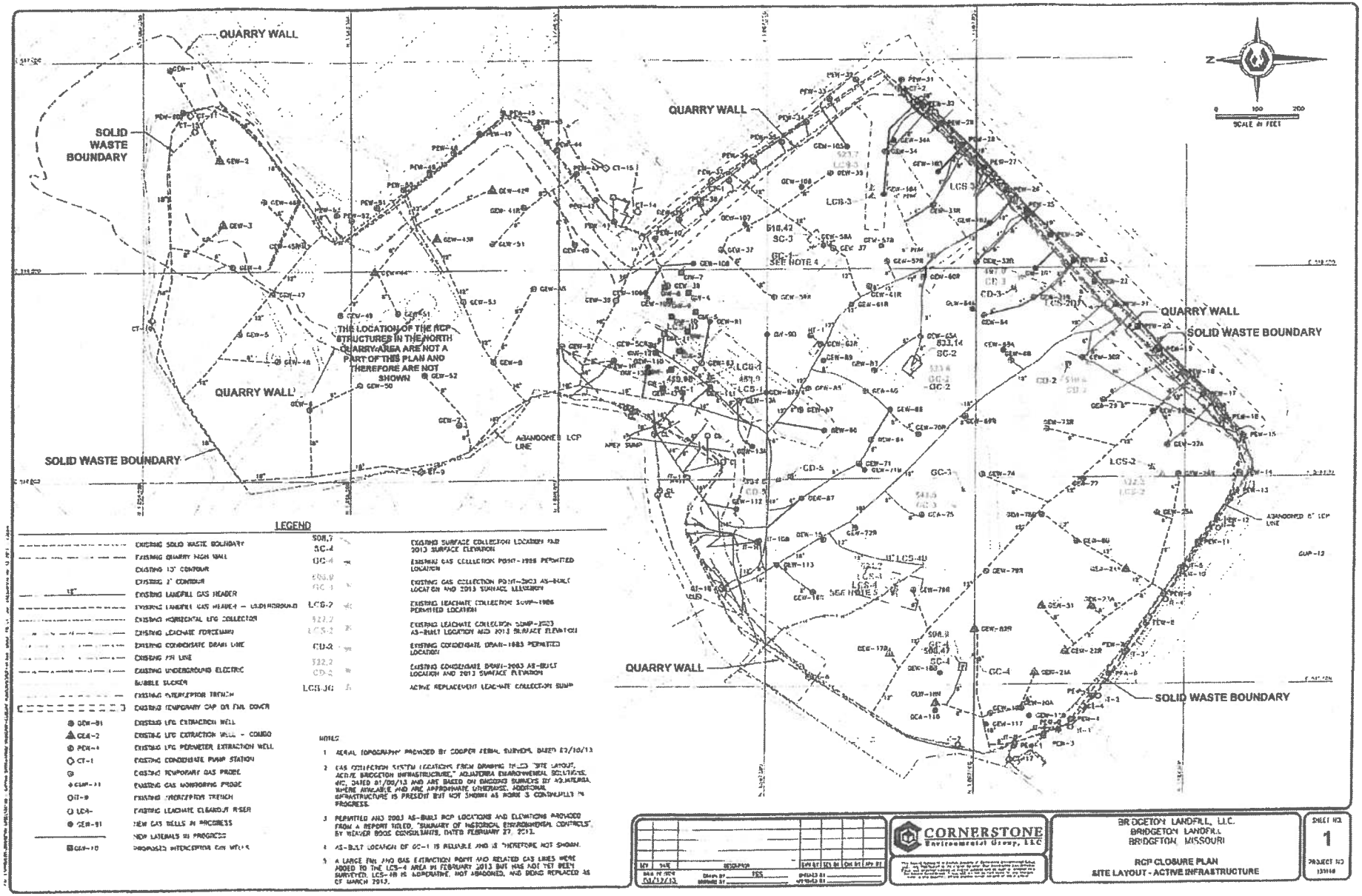
QUARRY WALL
SOLID WASTE BOUNDARY
QUARRY WALL
THE LOCATION OF THE RCP STRUCTURES IN THE NORTH QUARRY AREA ARE NOT A PART OF THIS PLAN AND THEREFORE ARE NOT SHOWN
QUARRY WALL
SOLID WASTE BOUNDARY
ABANDONED LCP LINE
QUARRY WALL
SOLID WASTE BOUNDARY
QUARRY WALL
SOLID WASTE BOUNDARY
ABANDONED 6" LCP LINE
SEE NOTE 4
SEE NOTE 5
LCS-1
LCS-2
LCS-3
LCS-4
LCS-4B
LCS-5
LCS-6
LCS-7
SC-1
SC-2
SC-3
SC-4
GC-1
GC-2
GC-3
GC-4
CD-1
CD-2
CD-3
CD-4
CD-5
SCALE IN FEET
LEGEND
EXISTING SOLID WASTE BOUNDARY
EXISTING QUARRY HIGH WALL
EXISTING 10' CONTOUR
EXISTING 2' CONTOUR
EXISTING LANDFILL GAS HEADER
EXISTING LANDFILL GAS HEADER - UNDERGROUND
EXISTING HORIZONTAL LFG COLLECTOR
EXISTING LEACHATE FORCEMAIN
EXISTING CONDENSATE DRAIN LINE
EXISTING FO LINE
EXISTING UNDERGROUND ELECTRIC
BUBBLE SLICKEN
EXISTING INTERCEPTOR TRENCH
EXISTING TEMPORARY CAP OR FINAL COVER
EXISTING LFG EXTRACTION WELL
EXISTING LFG EXTRACTION WELL - COMBO
EXISTING LFG PERIMETER EXTRACTION WELL
EXISTING CONDENSATE PUMP STATION
EXISTING TEMPORARY GAS PROBE
EXISTING GAS MONITORING PROBE
EXISTING INTERCEPTOR TRENCH
EXISTING LEACHATE CLEANOUT RISER
NEW GAS WELLS IN PROGRESS
NEW LATERALS IN PROGRESS
PROPOSED INTERCEPTOR GAS WELLS
EXISTING SURFACE COLLECTION LOCATION AND 2013 SURFACE ELEVATION
EXISTING GAS COLLECTION POINT - 1998 PERMITTED LOCATION
EXISTING GAS COLLECTION POINT - 2003 AS-BUILT LOCATION AND 2013 SURFACE ELEVATION
EXISTING LEACHATE COLLECTION SUMP - 1998 PERMITTED LOCATION
EXISTING LEACHATE COLLECTION SUMP - 2003 AS-BUILT LOCATION AND 2013 SURFACE ELEVATION
EXISTING CONDENSATE DRAIN - 1998 PERMITTED LOCATION
EXISTING CONDENSATE DRAIN - 2003 AS-BUILT LOCATION AND 2013 SURFACE ELEVATION
ACTIVE REPLACEMENT LEACHATE COLLECTION SUMP
NOTES
1 AERIAL TOPOGRAPHY PROVIDED BY COOPER AERIAL SURVEYS, DATED 03/10/13
2 GAS COLLECTION SYSTEM LOCATIONS FROM DRAWING TITLED "SITE LAYOUT, ACTIVE BRIDGETON INFRASTRUCTURE," AQUATERRA ENVIRONMENTAL SOLUTIONS, INC., DATED 01/09/13 AND ARE BASED ON ENGCAD SURVEYS BY AQUATERRA, WHERE AVAILABLE AND ARE APPROXIMATE OTHERWISE. ADDITIONAL INFRASTRUCTURE IS PRESENT BUT NOT SHOWN AS MORE 3 CONDUITS IN PROGRESS.
3 PERMITTED AND 2003 AS-BUILT RCP LOCATIONS AND ELEVATIONS PROVIDED FROM A REPORT TITLED, "SUMMARY OF HISTORICAL ENVIRONMENTAL CONTROLS," BY WEAVER BOOS CONSULTANTS, DATED FEBRUARY 27, 2013.
4 AS-BUILT LOCATION OF GC-1 IS RELIABLE AND IS THEREFORE NOT SHOWN.
5 A LARGE FAN AND GAS EXTRACTION POINT AND RELATED GAS LINES WERE ADDED TO THE LCS-4 AREA IN FEBRUARY 2013 BUT HAS NOT YET BEEN SURVEYED. LCS-4B IS ADMINISTRATIVE, NOT ABANDONED, AND WERE REPLACED AS OF MARCH 2013.
CORNERSTONE Environmental Group, LLC
BRIDGETON LANDFILL, LLC.
BRIDGETON LANDFILL
BRIDGETON, MISSOURI
RCP CLOSURE PLAN
SITE LAYOUT - ACTIVE INFRASTRUCTURE
SHEET NO. 1
PROJECT NO. 133148

Exhibit B

Corrective Action Zone

BRIDGETON LANDFILL
NECK AREA – CORRECTIVE ACTION ZONE

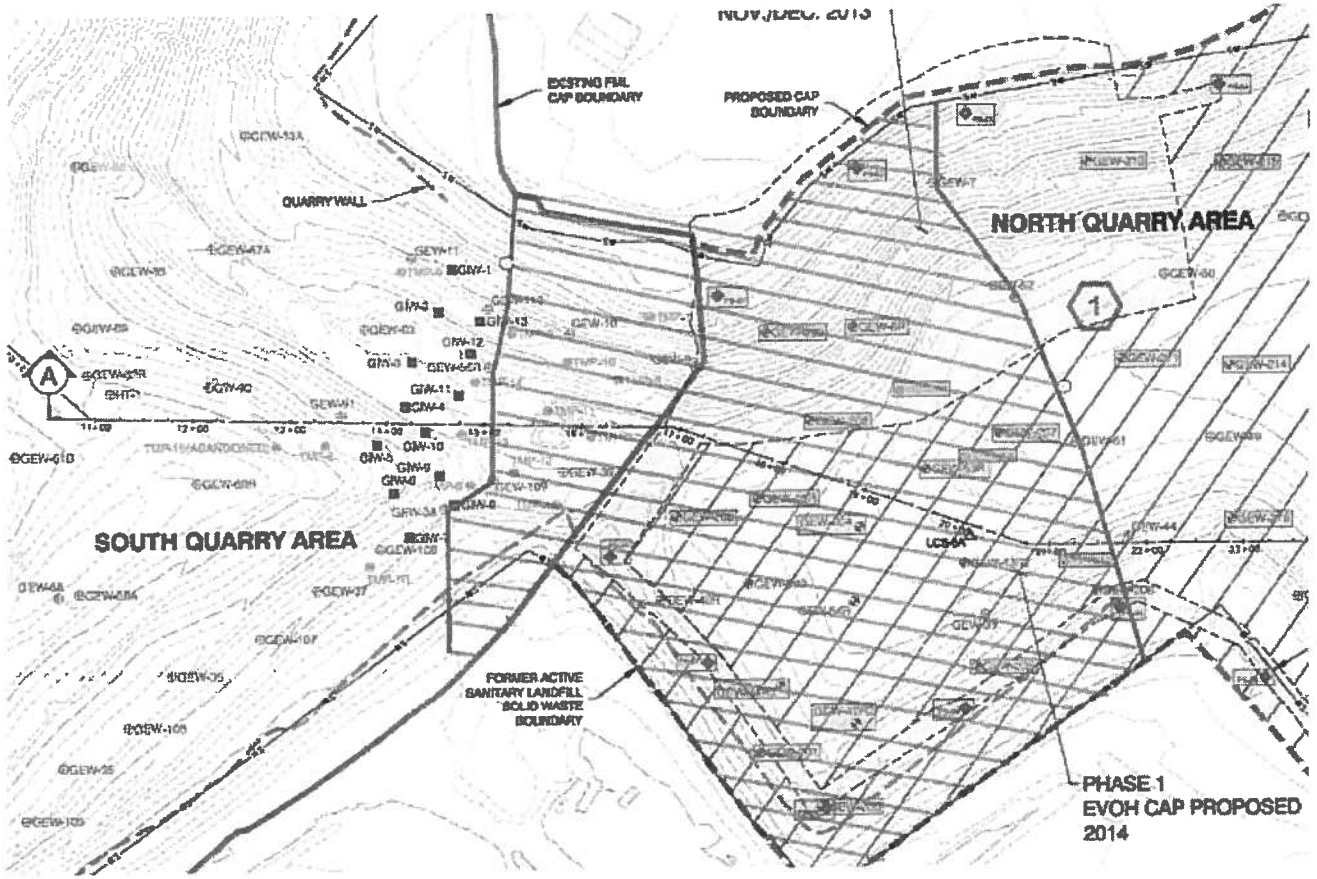

EXHIBIT C
APPENDIX II - CONSTITUENTS

Appendix II—List of Hazardous Inorganic and Organic Constituents[1]

Common Name[2]	CAS RN[3]
Acenaphthene	83-32-9
Acenaphthylene	208-96-8
Acetone	67-64-1
Acetonitrile; Methyl cyanide	75-05-8
Acetophenone	98-86-2
2-Acetylaminofluorene; 2-AAF	53-96-3
Acrolein	107-02-8
Acrylonitrile	107-13-1
Aldrin	309-00-2
Allyl chloride	107-05-1
4-Aminobiphenyl	192-67-1
Anthracene	120-12-7
Antimony	(Total)
Arsenic	(Total)
Barium	(Total)
Benzene	71-43-2
Benzo[a]anthracene; Benzanthracene	56-55-3
Benzo[b]fluoranthene	205-99-2
Benzo[k]fluoranthene	207-08-9
Benzo[ghi]perylene	191-24-2
Benzo[a]pyrene	50-32-8
Benzyl alcohol	100-51-6
Beryllium	(Total)
alpha-BHC	319-84-6
beta-BHC	319-85-7
delta-BHC	319-86-8
gamma-BHC; Lindane	58-89-9
Bis(2-chloroethoxy)methane	111-91-1
Bis(2-chloroethyl) ether; Dichloroethyl ether	111-44-4
Bis(2-chloro-1-methylethyl) ether; 2,2'-Dichlorodiisopropyl ether; DCIP	108-60-1 See Note 3
Bis(2-ethylhexyl) phthalate	117-81-7
Bromochloromethane; Chlorobromomethane	74-97-5
Bromodichloromethane; Dibromochloromethane	75-27-4
Bromoform; Tribromomethane	75-25-2
4-Bromophenylphenyl ether	101-55-3
Butyl benzyl phthalate; Benzyl butyl phthalate	85-68-7
Cadmium	(Total)
Carbon disulfide	75-15-0
Carbon tetrachloride	56-23-5
Chlordane	See Note 4.
p-Chloroaniline	106-47-8
Chlorobenzene	108-90-7
Chlorobenzilate	510-15-6
p-Chloro-m-cresol; 4-Chloro-3-methylphenol	59-50-7
Chloroethane; Ethyl chloride	75-00-3
Chloroform; Trichloromethane	67-66-3
2-Chloronaphthalene	91-58-7
2-Chlorophenol	95-57-8
4-Chlorophenyl phenyl ether	7005-72-3
Chloroprene	126-99-8
Chromium	(Total)
Chrysene	218-01-9
Cobalt	(Total)
Copper	(Total)
m-Cresol; 3-methylphenol	108-39-4
o-Cresol; 2-methylphenol	95-48-7
p-Cresol; 4-methylphenol	106-44-5
Cyanide	57-12-5
2,4-D; 2,4-Dichlorophenoxyacetic acid	94-75-7
4,4'-DDD	72-54-8
4,4'-DDE	72-55-9
4,4'-DDT	50-29-3
Diallate	2303-16-4
Dibenz[a,h]anthracene	53-70-3
Dibenzofuran	132-64-9
Dibromochloromethane; Chlorodibromomethane	124-48-1
1,2-Dibromo-3-chloropropane;DBCP	96-12-8
1,2-Dibromoethane; Ethylene dibromide; EDB	106-93-4
Di-n-butyl phthalate	84-74-2
o-Dichlorobenzene; 1,3-Dichlorobenzene	95-50-1
m-Dichlorobenzene; 1,3-Dichlorobenzene	541-73-1
p-Dichlorobenzene; 1,4-Dichlorobenzene	106-46-7
3,3'-Dichlorobenzidine	91-94-1
trans-1,4-Dichloro-2-butene	110-57-6
Dichlorodifluoromethane; CFC 12;	75-71-8
1,1-Dichloroethane; Ethylidene chloride	75-34-3
1,2-Dichloroethane; Ethylene dichloride	107-06-2
1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene chloride	75-35-4
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene	156-59-2
trans-1,2-Dichloroethylene trans-1,2-Dichloroethene	156-60-5
2,4-Dichlorophenol	120-83-2
2,6-Dichlorophenol	87-65-0
1,2-Dichloropropane; Propylene dichloride	78-87-5
1,3-Dichloropropane; Trimethylene dichloride	142-28-9
2,2-Dichloropropane; Isopropylidene chloride	594-20-7
1,1-Dichloropropene	563-58-6
cis-1,3-Dichloropropene	10061-01-5
trans-1,3-Dichloropropene	10061-02-6
Dieldrin	60-57-1
Diethyl phthalate	84-66-2
O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin	297-97-2
Dimethoate	60-51-5
p-(Dimethylamino)azobenzen	60-11-7
7,12-Dimethylbenz[a]anthracene	57-97-6
3,3'-Dimethylbenzidine	119-93-7
2,4-Dimethylphenol; m-Xylenol	105-67-9
Dimethyl phthalate	131-11-3
m-Dinitrobenzene	99-65-0
4,6-Dinitro-o-cresol 4,6-Dinitro-2-methylphenol	534-52-1
2,4-Dinitrophenol;	51-28-5
2,4-Dinitrotoluene	121-14-2
2,6-Dinitrotoluene	606-20-2
Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol	88-85-7
Di-n-octyl phthalate	117-84-0
Diphenylamine	122-39-4
Disulfoton	298-04-4
Endosulfan I	959-98-8
Endosulfan II	33213-65-9
Endosulfan sulfate	1031-07-8
Endrin	72-20-8
Endrin aldehyde	7421-93-4
Ethylbenzene	100-41-4
Ethyl methacrylate	97-63-2
Ethyl methanesulfonate	62-50-0
Famphur	52-85-7
Fluoranthene	206-44-0
Fluorene	86-73-79
Heptachlor	76-44-8
Heptachlor epoxide	1024-57-3
Hexachlorobenzene	118-74-1
Hexachlorobutadiene	87-68-3
Hexachlorocyclopentadiene	77-47-4
Hexachloroethane	67-72-1
Hexachloropropene	1888-71-7

2-Hexanone; Methyl butyl ketone	591-78-6
Indeno(1,2,3-cd)pyrene	193-39-5
Isobutyl alcohol	78-83-1
Isodrin	465-73-6
Isophorone	78-59-1
Isosafrole	120-58-1
Kepone	143-50-0
Lead	(Total)
Mercury	(Total)
Methacrylonitrile	126-98-7
Methapyrilene	91-80-5
Methoxychlor	72-43-5
Methyl bromide; Bromomethane	74-83-9
Methyl chloride; Chloromethane	74-87-3
3-Methylcholanthrene	56-49-5
Methyl ethyl ketone; MEK; 2-Butanone	78-93-3
Methyl iodide; Iodomethane	74-88-4
Methyl methacrylate	80-62-6
Methyl methanesulfonate	66-27-3
2-Methylnaphthalene	91-57-6
Methyl parathion; Parathion methyl	298-00-0
4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1
Methylene bromide; Dibromomethane	74-95-3
Methylene chloride; Dichloromethane	75-09-2
Naphthalene	91-20-3
1,4-Naphthoquinone	130-15-4
1-Naphthylamine	134-32-7
2-Naphthylamine	91-59-8
Nickel	(Total)
o-Nitroaniline; 2-Nitroaniline	88-74-4
m-Nitroaniline; 3-Nitroaniline	99-09-2
p-Nitroaniline; 4-Nitroaniline	100-01-6
Nitrobenzene	98-95-3
o-Nitrophenol; 2-Nitrophenol	88-75-5
p-Nitrophenol; 4-Nitrophenol	100-02-7
N-Nitrosodi-n-butylamine	924-16-3
N-Nitrosodiethylamine	55-18-5
N-Nitrosodimethylamine	62-75-9
N-Nitrosodiphenylamine	86-30-6
N-Nitrosodipropylamine; N-nitroso-N-dipropylamine	
Di-n-propylnitrosamine	621-64-7
N-Nitrosomethylethylamine	10595-95-6
N-Nitrosopiperidine	100-75-4
N-Nitrosopyrrolidine	930-55-2
5-Nitro-o-toluidine	99-55-8
Parathion	56-38-2
Pentachlorobenzene	608-93-5
Pentachloronitrobenzene	82-68-8
Pentachlorophenol	87-86-5
Phenacetin	62-44-2
Phenanthrene	85-01-8
Phenol	108-95-2
p-Phenylenediamine	106-50-3
Phorate	298-02-2
Polychlorinated biphenyls; PCBs; Aroclors	See Note 5.
Pronamide	23950-58-5
Propionitrile; Ethyl cyanide	107-12-0
Pyrene	129-00-0
Safrole	94-59-7
Selenium	(Total)
Silver	(Total)
Silvex; 2,4,5-TP	93-72-1
Styrene	100-42-5
Sulfide	18496-25-8
2,4,5-T; 2,4,5-Trichlorophenoxyacetic acid	93-76-5
1,2,4,5-Tetrachlorobenzene	95-94-3
1,1,1,2-Tetrachloroethane	630-20-6
1,1,2,2-Tetrachloroethane	79-34-5
Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	127-18-4
2,3,4,6-Tetrachlorophenol	58-90-2
Thallium	(Total)
Tin	(Total)
Toluene	108-88-3
o-Toluidine	95-53-4
Toxaphene	See Note 6.
1,2,4-Trichlorobenzene	120-82-1
1,1,1-Trichloroethane; Methylchloroform	71-55-6
1,1,2-Trichloroethane	79-00-5
Trichloroethylene; Trichloroethene	79-01-6
Trichlorofluoromethane; CFC-11	75-69-4
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
1,2,3-Trichloropropane	96-18-4
0,0,0-Triethyl phosphorothioate	126-68-1
sym-Trinitrobenzene	99-35-4
Vanadium	(Total)
Vinyl acetate	108-05-4
Vinyl chloride; Chloroethene	75-01-4
Xylene (total)	See Note 7.
Zinc	(Total)

Notes

1. The regulatory requirements pertain only to the list of substances.

2. Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

3. This substance is often called Bis(2-chloroisopropyl) ether, the name Chemical Abstracts Service applies to its noncommercial isomer, Propane, 2,2'-oxybis, 2-chloro- (CAS RN 39638-32-9).

4. Chlordane: This entry includes alpha-chlordane (CAS RN 5103-71-9), beta-chlordane (CAS RN 5103-74-2), gamma-chlordane (CAS RN 5566-34-7), and constituents of chlordane (CAS RN 57-74-9 and CAS RN 12789-03-6).

5. Polychlorinated biphenyls (CAS RN 1336-36-3): this category contains congener chemicals, including constituents of Aroclor 1016 (CAS RN 12674-11-2), Aroclor 1221 (CAS RN 11104-28-2), Aroclor 1232 (CAS RN 11141-16-5), Aroclor 1242 (CAS RN 53469-21-9), Aroclor 1248 (CAS RN 12672-29-6), Aroclor 1254 (CAS RN 11097-69-1), and Aroclor 1260 (CAS RN 11096-82-5).

6. Toxaphene: This entry includes congener chemicals contained in technical toxaphene (CAS RN 8001-35-2), i.e., chlorinated camphene.

7. Xylene (total): This entry includes o-xylene (CAS RN 96-47-6), m-xylene (CAS RN 108-38-3), p-xylene (CAS RN 106-42-3), and unspecified xylenes (dimethylbenzenes) (CAS RN 1330-20-7).

Exhibit D

Approved Work Plans

A. "2013 Gas Interceptor Well System - Expanded Design," approved February 8, 2013. Defendants are not precluded from using the interceptor wells as a portion of the gas extraction system.

B. "Bridgeton Landfill - Gas Interceptor Well Design," received by the Department on January 10, 2013, approved January 11, 2013, and already implemented by Defendants.

C. "Landfill Gas Corrective Action Plan," submitted to the Department on July 26, 2013 and required quarterly updates to the plan to be submitted to the Department within 30 days of the close of each calendar quarter by Defendants until compliance is achieved.

D. "Small Crack and Void Filling Program Plan" approved on September 4, 2014.

E. "Stormwater Management Work Plan" approved on August 13, 2014.

F. "Soil Filling of Settled Areas Plan " approved on October 21, 2014.

G. "Expanded Heat Removal Pilot Project Study Plan" approved on September 4, 2014.

H. "Odor Evaluation Pilot Project Study Plan" approved by the Department on August 1, 2014.

I. "North Quarry Action Plan" and approved by the Department on October 23, 2013, and amendments approved on January 8, 2014.

J. "Leachate Tank and Disposal Plan" received on March 7, 2013, "Landfill Leachate Storage Tank and Load out Construction Plans" received April 2, 2013, "Leachate Tank and Transport Disposal Plan, CEC Project 130-484" received on April 17, 2013, the "Four (4) One Million Gallon Leachate Tanks and Transport and Disposal Plan including the revised Interim Leachate Management Plan" received July 25, 2013, the "Leachate Pre-treatment System Plan" received September 1, 2013, and a revised "Interim Leachate Management Plan" received March 15, 2014 have been approved as detailed in the Department's July 29, 2014 and August 22, 2014 response letters with the exception of direct discharge through the sewer line currently being installed between Defendants and the Metropolitan Sewer District's Bissell Point Plant.

K. "Incident Management Plan" submitted on July 2, 2014, as amended, and already implemented by Defendants.

L. "Health and Safety Plan" submitted on October 20, 2014, as amended, and already implemented by Defendants.

M. "Installation of Nine Additional Temperature Monitoring Probes in the North Quarry Workplan and Schedule" by the Department on November 12, 2014.

Exhibit E

Pending Work Plans

A. "Assessment Monitoring Plan – Wells 104-SS and 104-SD" received by the Department on December 18, 2013 and a response letter requesting corrections and corrective action by Defendants from the Department on July 30, 2014, responses to comments on the plan received October 29, 2014, the Third Quarter 2014 Assessment Monitoring Event Summary Report received October 29, 2014 and an Assessment of Corrective Measures received October 2014 which are currently under review by the Department.

D. "Odor Management Plan" received on June 19, 2014.

E. "Incident Management Plan" submitted on July 2, 2014, as amended, and already implemented by Defendants. The Incident Management Plan was developed for use by the local fire departments in responding to calls to the Site. The Department's May 5, 2014 letter requires a Contingency Plan in compliance with the hazardous waste management regulations. The existing Incident Management Plan submittal has been reviewed by the Hazardous Waste Program. The Hazardous Waste Program has provided comments and additional comments are forthcoming.

F. "Health and Safety Plan" submitted on October 20, 2014, as amended, and already implemented by Defendants. The Department's May 5, 2014 letter requires a Health and Safety Plan compliant with

the hazardous waste management regulations. The existing Health and Safety Plan was reviewed and comments provided. On December 5, 2014 Defendants provided a copy of site safety training presentation materials for review. The Hazardous Waste Program's additional comments are forthcoming.

G. "Corrective Action Plan, Potential Northward Progression of Subsurface Smoldering Event" submitted on November 5, 2014.

H. "Landfill Gas Corrective Action Plan Supplemental Update – Gas Collection and Control System Construction Design Details" submitted on December 3, 2014.

I. "Sulfur Removal Technology Pilot Study" submitted on January 23, 2015 by Defendants and responded to by the Department on February 11, 2015 with additional information requested from Defendants.

Exhibit G

Missouri Department of Health and Senior Services
And Department of Natural Resources
Alert Protocol

Bridgeton Sanitary Landfill Ambient Air Response Alert Protocol
Department of Health and Senior Services
May 2013

Background and Purpose

The purpose of this document is to provide recommended response levels in order to assess monitoring data being generated by the Missouri Department of Natural Resources or their contractor for the Bridgeton Sanitary Landfill subsurface smoldering event response. Monitoring equipment being used includes AreaRAE monitors, an UltraRAE benzene monitor and a Jerome J-605 hydrogen sulfide monitor. In preparing this review, the Department of Health and Senior Services (DHSS) reviewed available comparison values (guideline concentrations) from the Environmental Protection Agency, Agency for Toxic Substances and Disease Registry and National Institute for Occupational Safety and Health. When determining appropriate guideline concentrations to choose, DHSS elected to choose the lowest appropriate and detectable guideline concentration available for each response level. Where the lowest guideline concentration was below the detection limit capability of an instrument, the lower detection limit of the monitoring instrument was chosen as the appropriate response trigger concentration. Any response decision triggered by monitoring results should be coordinated between responsible agencies and determined based on valid data, site conditions, meteorological conditions, planned site activities, and any other appropriate information. Below is a review of the four chemicals of concern for monitoring around the Bridgeton Sanitary Landfill, a summary table of available guideline concentrations reviewed (Table 1) and a table of response trigger concentrations (Table 2).

Hydrogen Sulfide

Concentrations ≥ 0.07 ppm

- DNR staff determine data validity and 30-minute average concentration
- If 30-minute average is ≥ 0.07 ppm (ATSDR's acute EMEG), coordinate "yellow" response

Concentrations ≥ 0.3 ppm

- DNR staff determine data validity and 30-minute average concentration
- If 30-minute average is ≥ 0.33 ppm (EPA's 8-hr AEGL-1), coordinate "orange" response

Concentrations ≥ 5 ppm

- DNR staff determine data validity and 10-minute average concentration
- If 10-minute average concentration is ≥ 5 ppm [half of NIOSH's 10-minute REL (10 ppm)], coordinate "red" response

**EPA's 8-hr AEGL-2 (long-term effect /serious short-term effect threshold) is 17 ppm.*
EPA's 10-minute AEGL-2 is 41 ppm.
**EPA's 8-hr AEGL-3 (life-threatening effect threshold) is 31 ppm.*
EPA's 10-minute AEGL-3 is 76 ppm.

Yellow and orange response levels: ATSDR's environmental media evaluation guide (EMEG) for acute (<14 days) inhalation exposure to hydrogen sulfide is a concentration not expected to pose a health threat to the general population, including sensitive individuals such as children and asthmatics. EPA's acute exposure guideline level-1 (AEGL-1) for eight hour exposure to hydrogen sulfide is a concentration above which the general public, including sensitive individuals, could experience transient, reversible symptoms such as discomfort and irritation. Both the EMEG and AEGL-1 are based on a study in which asthmatics exposed to 2 ppm hydrogen sulfide for 30 minutes developed headache and some measurable changes in lung function. ATSDR's EMEG was established for a longer exposure

period of up to 14 days and, as a more conservative value, may be more protective of sensitive individuals, including asthmatics and others with chronic respiratory disease.

Red response level: The NIOSH recommended exposure limit (REL) for hydrogen sulfide is an upper limit of exposure during a work-shift for prevention of any acute effects, especially on the respiratory and nervous systems. EPA's AEGL-2 values are concentrations above which the general public, including sensitive individuals, could experience serious short-term or long-lasting health effects. EPA's AEGL-3 values are concentrations above which the general public could experience life-threatening health effects. Although NIOSH's REL was established for worker exposure, it is the more conservative value and, therefore, was used to determine a red-level response value. The red-level response trigger of 5 ppm was determined by dividing the NIOSH REL in half. This would provide agencies with the ability to confer on the situation and act to help prevent exposures of public health concern should the need arise.

Sulfur Dioxide

Concentrations ≥ 0.1 ppm

- DNR staff determine data validity and 30-minute average concentration
- If 30-minute average concentration is ≥ 0.1 ppm (i.e., at least the lower detection limit of the monitoring instrument), coordinate "orange" response

Concentrations ≥ 0.3 ppm

- DNR staff determine data validity and 10-minute average concentration
- If 10-minute average concentration ≥ 0.375 ppm [half of AEGL-2 (0.75 ppm)], coordinate "red" response

**ATSDR's acute EMEG is 0.01 ppm.*
**NAAQS 1-hr average level is 0.075 ppm.*
NAAQS 24-hr average is 0.14 ppm.
**EPA's AEGL-1 is 0.20 ppm.*
**NIOSH REL is 2 ppm.*
**NIOSH STEL and OSHA's 8-hr PEL are 5 ppm.*
**EPA's 8-hr AEGL-3 is 9.6 ppm.*
EPA's 10-minute AEGL-3 is 30 ppm.

Orange response level: ATSDR's EMEG for acute (<14 days) inhalation exposure to sulfur dioxide is a concentration not expected to pose a health threat to the general population, including sensitive populations such as children and asthmatics. The EMEG is based on a study in which especially sensitive asthmatics exposed to 0.1 to 0.5 ppm sulfur dioxide for 10 minutes while exercising exhibited slight increases in airway resistance. EPA's AEGL-1 is a concentration above which the general public, including sensitive individuals, could experience transient, reversible symptoms such as discomfort and irritation. NAAQS 24-hour and 1-hour average levels of exposure were established for the protection of public health, including the health of sensitive individuals such as children and asthmatics. Because the lower detection limit of the AreaRae sensor (0.1 ppm) exceeds the more conservative guidelines (the EMEG and 1-hour NAAQS) but not other protective comparison values (EPA's AEGL-1 and 24-hour NAAQS), the detection limit was chosen as a guideline for determining an orange-level response.

Red response level: EPA's AEGL-2 value is a concentration above which the general public, including sensitive individuals, could experience serious short-term or long-lasting health effects. The AEGL-2 is based on a study in which asthmatics exposed to 0.75 ppm sulfur dioxide while exercising (for 10 minutes to 3 hours) clearly exhibited significant increases in airway resistance. EPA's AEGL-3 values are concentrations above which the general public could experience life-threatening health effects. NIOSH recommended exposure limit (REL) and short-term exposure limit (STEL) and OSHA

permissible exposure limit (PEL) for sulfur dioxide are average upper exposure limits for workers in an occupational setting. The AEGL-2 is more conservative than either the STEL or PEL and may be the most protective comparison value for determining red-level response. The red-level response trigger of 0.375 ppm was determined by dividing the AEGL-2 in half. This would provide agencies with the ability to confer on the situation and act to help prevent exposures of public health concern should the need arise.

Benzene

Concentrations ≥ 0.05 ppm

- DNR staff determine data validity and 30-minute average concentration
- If 30-minute average concentration is ≥ 0.05 ppm (i.e., at least the lower detection limit of the monitoring instrument), coordinate "orange" response

Concentrations ≥ 0.5 ppm

- DNR staff determine data validity and 10-minute average concentration
- If 10-minute average concentration is ≥ 0.5 ppm [half of NIOSH's STEL (1 ppm)], coordinate "red" response

**ATSDR's EMEG is 0.009 ppm*
**EPA's 8-hr AEGL-1 is 9 ppm.*
EPA's 10-minute AEGL-1 is 130 ppm
**EPA's 8-hr AEGL-2 is 200 ppm.*
EPA's 10-minute AEGL-2 is 2,000 ppm.

Orange response level: ATSDR's EMEG for acute (<14 days) inhalation exposure to benzene is a concentration not expected to pose a health threat to the general population, including sensitive individuals. The EMEG is based on an animal study in which immunological effects were observed in mice exposed to 2.5 ppm (human-equivalent concentration) benzene. EPA's AEGL-1 for exposure to benzene is a concentration above which the general public, including sensitive individuals, may experience transient, reversible symptoms. The AEGL-1 is based on a human study in which mild, subjective effects (specifically, nervous system effects such as dizziness) were not observed during 2-hour exposure to 110 ppm benzene. Because the lower detection limit of the benzene sensor (0.05 ppm) exceeds the most conservative guideline (ATSDR's EMEG) but not other protective comparison values (EPA's AEGL-1), the detection limit was chosen as a guideline for determining an orange-level response.

Red response level: The NIOSH STEL for benzene is an upper limit of exposure during a work-shift for prevention of any acute or long-term effects. EPA's AEGL-2 values are concentrations above which the general public, including sensitive individuals, could experience serious short-term or long-lasting health effects. The AEGL-2 is based on an animal study in which rats exposed to 4,000 ppm for 4 hours showed no evidence of reduced activity. EPA's AEGL-3 values are concentrations above which the general public could experience life-threatening health effects. Although NIOSH's STEL was established for worker exposure, it is the more conservative value and, therefore, was used to determine a red-level response value. The red-level response trigger of 0.5 ppm was determined by dividing the NIOSH STEL in half. This would provide agencies with the ability to confer on the situation and act to help prevent exposures of public health concern should the need arise.

Carbon Monoxide

Concentrations ≥ 9 ppm

- DNR staff determine data validity and 30-minute average concentration

- If 30-minute average concentration is ≥ 9 ppm (NAAQS 8-hr limit), coordinate "orange" response

Concentrations ≥ 13.5 ppm

- DNR staff determine data validity and a 10-minute average concentration
- If 10-minute average concentration is ≥ 13.5 ppm [EPA's 8-hr AEGL-2 (27 ppm)], coordinate "red" response

**NAAQS 1-hr limit and NIOSH REL are 35 ppm.* **EPA's 8-hr AEGL-3 is 130 ppm.*
**EPA's 10-minute AEGL-2 is 420 ppm.* *EPA's 10-minute AEGL-3 is 1,700 ppm.*

Orange response level: The NAAQS 8-hour limit was established for the protection of public health, including the health of sensitive individuals, and is currently the most health-protective guideline. Neither ATSDR nor EPA has established acute exposure guidelines for transient, "less severe" health effects.

Red response level: EPA's AEGL-2 values are concentrations above which the general public, including sensitive individuals, could experience serious short-term or long-lasting health effects. EPA's AEGL-3 values are concentrations above which the general public could experience life-threatening health effects. A NAAQS 1-hour limit has been established for the protection of public health, including sensitive individuals. The AEGL-2 established for 8-hour exposure is lower than the NAAQS 1-hour limit and, therefore, was used as a potentially more protective value for determining a red-level response value. The red-level response trigger of 13.5 ppm was determined by dividing the AEGL-2 in half. This would provide agencies with the ability to confer on the situation and act to help prevent exposures of public health concern should the need arise.

Table 1. Guideline Concentrations (ppm) for Acute Exposure to Chemicals in Air

Chemical	LDL[a] (ppm)	Acute Exposure Guidelines									
		ATSDR Acute EMEG[b]	EPA AEGL-1[c]		EPA AEGL-2[c]		EPA AEGL-3[c]		NIOSH REL/ STEL[d]	EPA NAAQS[e]		
			8 hr	10 min	8 hr	10 min	8 hr	10 min		24 hr	8 hr	1 hr
Hydrogen Sulfide	0.001	**0.07**	**0.33**	0.75	17	41	31	76	10 (10 min)	ND	ND	ND
Sulfur Dioxide	**0.1**	0.01[f]	0.20	0.20	**0.75**	**0.75**	9.6	30	2 (10 hr)	0.14	ND	0.075[f]
Benzene	**0.05**	0.009[f]	9	130	200	2,000	990	9,700	1 (15 min)	ND	ND	ND
Carbon Monoxide	0.1	ND	ND	ND	**27**	420	130	1,700	35 (10 hr)	ND	**9**	35

[a]Lower detection limit (LDL) of monitoring instrument
[b]Agency for Toxic Substances and Disease Registry (ATSDR) Environmental Media Evaluation Guide (EMEG) for acute (<14 day) exposure. Concentrations equal to EMEGs are not expected to cause adverse health effects in the general population, including sensitive individuals including children and asthmatics.
[c]Environmental Protection Agency (EPA) Acute Exposure Guideline Level (AEGL) for 8 hour and 10 minute exposure. Concentrations that exceed AEGLs are predicted to cause transient, reversible health effects (AEGL-1), serious long-term or short-term effects (AEGL-2), or life-threatening effects (AEGL-3).
[d]National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit (REL) or Short Term Exposure Limit (STEL) during work-shift.
[e]National Ambient Air Quality Standard for 24 hour, 8 hour, and 1 hour periods, for the protection of public health, including sensitive individuals such as children and asthmatics.
[f]Below detection limit capabilities.
ND = not determined

Table 2. Response Trigger Concentrations (ppm) of Landfill Gases in Ambient Air

Chemical	Response Level		
	Yellow 30-minute average concentration	Orange 30-minute average concentration	Red 10-minute average concentration (1/2 of red guideline concentration)
Hydrogen Sulfide	**0.07**	**0.33**	**5.0**
Sulfur Dioxide	NA	**0.1**	**0.375**
Benzene	NA	**0.05**	**0.5**
Carbon Monoxide	NA	**9.0**	**13.5**

*Valid data: no sensor error and, according to meteorological conditions, site activity, data review, etc., exceedances are determined to be site-related

Response Levels (any response should be determined based on valid data, site conditions, meteorological conditions, planned site activities, etc.)

Yellow: Possible short-term, "less severe" health effects, such as headache, eye/nose/throat irritation. Sensitive individuals including asthmatics and people with other respiratory diseases should stay inside as much as possible, avoid outside strenuous activities, and seek medical attention for any acute symptoms.

Orange: Possible short-term, "less severe" health effects. All individuals should stay inside as much as possible, avoid outside strenuous activities, and seek medical attention for any acute symptoms. DNR contacts DHSS and other concerned agencies to coordinate a response, taking into consideration site conditions, meteorological conditions, planned site activities, etc.

Red: Prevention of possible long-term effects or serious short-term effects. DNR contacts DHSS and other concerned agencies to coordinate a response, taking into consideration site conditions, meteorological conditions, planned site activities, etc.

Standing Alert

Due to strong odors, individuals may experience undesirable, transient symptoms such as headache and nausea. Asthmatics and other sensitive individuals may be especially susceptible to strong odors. Also, although guideline values are protective of the general public including sensitive individuals such as children and asthmatics, certain individuals may experience health effects due to idiosyncratic response when concentrations are below those guideline levels. During periods of objectionable odor, sensitive individuals and persons with chronic respiratory diseases should limit time spent outdoors and seek medical advice for any acute symptoms.

EXHIBIT H
Republic Services
Bridgeton Landfill
Odor Management Plan

ODOR MANAGEMENT PLAN

Bridgeton Landfill
13570 St. Charles Rock Road
Bridgeton, Missouri

Date: 6-4-2014

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1.0 INTRODUCTION

1.1 BACKGROUND

The Bridgeton Landfill (the landfill or the Site) is located on a 214-acre parcel, of which approximately 52 acres has been permitted for municipal solid waste disposal under the conditions of Permit #118912 held by Bridgeton Landfill, LLC ("Bridgeton Landfill"). In accordance with the permit, waste was placed in former limestone quarries which were reportedly about 240 feet deep. The landfill ceased accepting waste at the end of 2004.

1.2 PURPOSE OF THE ODOR MANAGEMENT PLAN

This Odor Management Plan is intended to become an integrated part of daily operations at the Bridgeton Landfill so as to effect diligent identification and remediation of odors generated by the Bridgeton Landfill. This Plan is intended to meet the odor monitoring requirements of the Operation, Maintenance, and Monitoring Plan (submitted September 2013, and as amended).

2.0 ODOR MONITORING

This odor monitoring program has been designed to provide guidance in the identification and documentation of odors through the utilization of self-inspections and odor complaint investigations. In addition, this program outlines the general methods by which odor sources can be identified and resolved.

2.1 IDENTIFYING THE PRESENCE OF ODOR

The first step in the process of controlling odors is to determine if odors are present. These two methods of identifying odors and how they are implemented as part of this Odor Management Plan are discussed in the following sections.

Routine Employee Observations

When any on-site facility employee detects an odor that has sufficient intensity or volume that it could lead to detection off-site, it will be reported to an Environmental Specialist or the Environmental Manager who will investigate to determine the source. The investigator will then assign the proper staff to restore the source area to normal operation to eliminate the odor source. Such on-site investigation, reporting, and remediation are inherent components of the site's standard operating procedures. No formal documentation, tracking, or record keeping of employee observations is required by this plan, but all record keeping requirements of the Operations, Maintenance, and Monitoring Plan are to be observed.

Self-Inspection

The primary objective of this method is to identify and mitigate odors from the facility before the odors can result in off-site migration. This is accomplished through the use of regular self-inspections. The self-inspection will be performed at random times with daily and weekly variability until meaningful trend data is collected in order to ensure that trending data is not biased by a pattern in self-inspection. This schedule will then be modified over time in order to include periods of highest historic off-site odor complaints when trending analysis of complaint data allows for the identification of patterns for off-site odor migration potential.

Self-inspection at the facility will be performed on a twice daily basis at minimum. The inspection will be performed by the Site environmental management staff or their designees. The inspection will consist of one or more of these individuals touring the facility perimeter along a pre-planned and consistent route (Figure 2). The focus of this inspection is limited specifically to the tasks detailed in this plan.

Detected odors will be classified with the scale defined by the Nasal Ranger® Field Olfactometer Operations Manual (Attachment 1). This method with accompanying instrument utilizes a "Dilution-to-Threshold" approach where a combination of carbon filtration and unfiltered air pass through the instrument based upon the test value selected on the instrument. These values are separated by 100% carbon filtered air from one another on the device, ensuring a "blank" sample in the progression through the scale. The exact methodology that will be applied is outlined in the previously mentioned Operations Manual (Attachment 1).

In addition to the Nasal Ranger® odors will be classified using the standardized terminology outlined in the St. Croix Odor Parameters Overview (Attachment 2).

The results of the daily odor inspection will be documented in an electronic database via tablet computer. This data shall be completed and maintained as part of the Site Operating Record (SOR). Any odors identified through self-inspection will be mitigated in accordance with the guidance for mitigation provided in the Operations, Maintenance, and Monitoring Plan. The process of self inspection will be as follows:

- Originating from The Bridgeton Landfill, LLC office at 13570 St. Charles Rock Road the inspecting party will drive the designated route from Figure 2 in a clockwise direction.
- This drive shall be performed with windows down (weather dependent) at a slow rate of speed.
- At each of the thirteen (13) designated locations the inspecting party will stop (where safe and in compliance with all traffic laws), turn off the vehicle engine, exit the vehicle, and record any odor observations on the Daily Odor Self-Inspection Form.
- If an odor is documented the investigator will be responsible for tracking back to the source of the odor. If the odor source is determined to be the Bridgeton Landfill the investigator will then request the necessary repair or mitigation. All significant off-site odors (odors evaluated to be >7 on the Nasal Ranger® scale) originating from the Bridgeton Landfill are to have the source and corrective action applied documented.

Odor Complaint Investigation

One of our goals as a company is to be a good neighbor and a contributor to the local community. All real-time odor complaints received will be investigated as soon as is practical within the confines of proper safety protocols and site logistics. A real-time odor complaint is defined as a complaint filed within two hours of the observation time and prior to any significant change in meteorological conditions. The goal of the investigation will be to determine if an odor originates from the landfill site and, if so, to determine the specific source and cause of the odor, and then to remediate the odor. Upon receipt of an odor complaint, the following actions will be taken:

- The complaint will be investigated by the Site environmental management staff.

- The investigation will be documented in a customized electronic database via tablet and will apply the same odor ranking scale as the self-inspection.
- If a complaint is verified (the Bridgeton Landfill investigator confirms that an odor is present and that the landfill cannot be ruled out as a source), the investigator will be responsible for tracking back to the source of the odor, requesting the necessary repair or mitigation, and documenting that the mitigation has occurred.
- On a monthly basis odor complaint investigatory findings will be compiled and presented in the Monthly Data Submittals as described in the Operation, Maintenance, and Monitoring Plan.

All off-site odor complaints will be logged in order to provide data for trending analysis of odor complaints in order to better schedule self-inspections and understand potential site problems.

Complaints that are received greater than one hour after the specified time, prior to a significant change in meteorological conditions, or on a different date will be investigated as non-real-time complaints. Non-real-time complaints and real-time complaints received during periods when real-time investigation can not be conducted for safety or site logistics restrictions should still be investigated through a combination of most recent inspection data, weather data, and site work schedules in order to determine if the odor could possibly have originated from the Bridgeton Landfill.

Equipment for Odor Inspection and Investigation

The transmission of odor depends on a number of variables including atmospheric conditions. As a result, an on-site weather station compliant with the EPA Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD) (EPA-450/4-87-007) will be employed to track wind direction, windspeed, humidity, precipitation, and other factors that can impact odor transmission. Data from both inspections and investigations will be recorded via tablet computers equipped with custom built software. This software will automatically log latitude and longitude from the tablet computer's built in GPS device and weather data from the nearest public meteorological station, most likely to be St.Louis Lambert International Airport. The combination of two different weather station data sets and accurate latitude and longitude data will greatly enhance the mapping and analysis of odor sources.

2.2 IDENTIFYING THE SOURCE OF ODOR

Once the presence of odor is identified through either self-inspection or through investigation of an odor complaint, the source of the odor needs to be identified and coded based on the odor descriptors selected during the self-inspection. The source of an odor may not be readily identifiable. If the source of the odor is not obvious and cannot be traced immediately to an issue or activity at the facility, the following steps may be used to identify the source of the odor:

- Use data from the on-site weather station. Determine the wind direction, speed, and barometer reading at the time the odor was identified.
- Collect daily facility inspection data from the Site's environmental technician staff.
- Using an aerial photograph or plan of the facility, draw a vector in the same direction as the wind, and intersect the location where the odor was identified. If the vector crosses the facility and the facility is in an upwind position compared to the location where the odor was identified, then determine the facility features and activities that lie along the vector. Compare the identified odor to any potential odor sources along the vector path and then inspect these potential odor sources in the field to identify the source.
- Collaborate with Site environmental technician staff to prioritize repair and remediation efforts on potential sources of off-site odor.
- Perform a follow up self-inspection of the previously impacted areas to verify successful elimination of off-site odors. If not eliminated, repeat this process at varying times of the day, under varying operational conditions, and with varying wind directions until the source of the odor is identified and repaired or remediated.

2.3 ODOR MANAGEMENT

Odor management and landfill gas management are inter-related. Odor management, for purposes of this Plan, will be the temporary measures employed during any work activity at the site that might generate odors such as excavation, significant well maintenance, etc.

Odor Management During Excavation

Any or all of the following may be used to manage odors during excavations into waste material:

- Minimize aerial extent of excavation to the extent required to maintain safe working conditions.
- If necessary, install a portable odor control unit near the excavation site, and install a 1,500 gallon water tank on a suitable pad.
- Use odor control neutralizers at a suitable concentration during the excavation and backfilling process. The concentration can be adjusted as necessary to achieve acceptable neutralization and to more fully neutralize aggressive odors.
- Adjust concentrations and nozzle spacing as necessary during the activities to neutralize the odors.
- During the backfill process, the neutralization process can be discontinued once more permanent landfill gas extraction methods are employed in this area; otherwise maintain neutralization until backfill is completed.

Odor Control During Transportation of Excavated Wastes

Any or all of the following may be used to manage odors during transportation of excavated waste material:

- In most cases, excavated wastes will be placed in a roll-off container or dump truck to transport to the Bridgeton transfer station. The container or dump truck will be tarped following placement of waste.
- The waste may be covered with an odor control product in the container used for transport, when applicable. If wastes require mixing, then a product can be applied following mixing if odors persist from these waste materials. The producer must be applied to completely cover the wastes with a thin coating.

Odor Management During Gas Emission Activities

Any or all of the following may be used to manage odors during activities that cause gas emissions:

- The wind location will be monitored during the course of the work to determine if odor modification (neutralizers) should be utilized.
- Install a portable odor control system downwind of the work area.

- Use an odor control neutralizer at a suitable concentration during the excavation and backfilling process. The concentration can be adjusted as necessary to achieve acceptable neutralization and to more fully modify aggressive odors.

2.4 REQUIRED DOCUMENTATION

In order to successfully measure the effectiveness of odor remediation, trend the causes of odors, document complaint follow-up, and focus our efforts on the best possible solutions for odor management, it is necessary to create and maintain proper documentation. This documentation should consist of an electronic database for odor self-inspections and odor complaint investigations, odor mitigation efforts, and the transference of this data into the Site Operating Record.

Electronic Database

In order to optimally track and analyze odor self-inspection and complaint investigation data these tasks will be performed through use of a tablet computer. Data will be logged in the field through a forced choice procedure to ensure uniformity in documentation. This data set will be designed with a compatible format to allow for export of the data into Microsoft Excel® or similar data management software.

Odor Mitigation Efforts

When off-site odors necessitate the implementation of the odor mitigation and control practices outlined in section 2.3 of this plan the effectiveness of these methods will be evaluated and documented for use by the management staff in determining the effectiveness of each method.

In the event that a mitigation method is attempted and found to be ineffective, another mitigation method must be attempted and/or outside experts must be contacted until the facility is successful in controlling odor. The decision-making process in choosing a method to control odor should also be documented. In documenting mitigation efforts, the following information must be recorded:

- The reasoning used in selecting the mitigation process.
- The manner and extent to which the mitigation efforts are made.
- The results of the mitigation effort.

Recording these details may be done through memorandum to the Site Operating Record (SOR).

Site Operating Record

Whenever the daily odor self-inspection or odor complaint investigation is performed, the appropriate document should be completed and maintained on site as part of the SOR. In addition to maintaining these documents in the SOR, all efforts to mitigate odors must be documented in detail. It is important to document all efforts taken to mitigate odors whether or not there have been complaints from the public.

2.5 TERM OF MONITORING

Bridgeton Landfill will perform the odor monitoring program for a period of six months upon acceptance of this Plan. Every 90 days thereafter the Environmental Manager and MDNR will review the results of monitoring and consider modification or discontinuation of the program if actionable results are no longer obtained.